

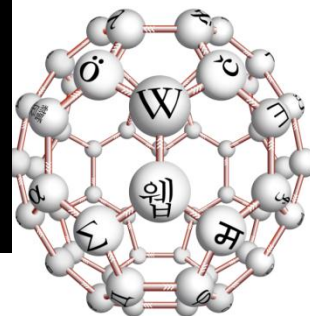
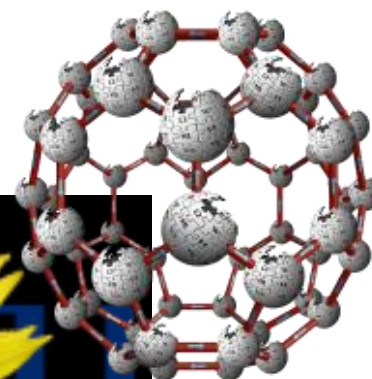
Updating:: WikiTags

Connecting Microsoft Office applications to Semantic MediaWiki

Jesse Wang, Dr. Mark Greaves
Project Halo, Vulcan Inc.

SMWCon Fall 2010, Open University, Amsterdam, NL

SMW:: powerful tools and contents



Semantic MediaWiki and related extensions have more potential power

Need Release :: *The (more) Power*

- Be used by **more people**
- Content in **more places**
- Accessible via **more applications**
- Enhanced with **more semantics**



Need :: *Workflow Integration + Usability Enhancements*

- **Infrequent** Wiki users **frequently** forget where the wiki pages are located
- Search is a **break** from current workflow
- Search result can be **noisy** or **irrelevant**
- **Usability:**
 - **Wiki/Template/SF markup syntax** is not extremely hard, but enough to turn off many users
 - To locate and consume info in SMW is just not easy enough, **need something better**
- *Why don't we leverage **Microsoft Office suite**?*



Microsoft Office ::

The Most Popular Productivity Suite

500m users worldwide

>90% market share

Users live in the “suite”

Outlook *always* open

Potential for SMW



Microsoft®
Office

WIKITAGS :: How It Works

- Leverage Microsoft SmartTags technology
- Bring SMW info to Office applications on-demand
- API for semantic data I/O
- Utilize semantics to improve relevance
- Smart actions for semantic properties



Smarts

Connections

For more info, go to
<http://wiking.vulcan.com/dev/>

Before the demo, let's look at

SOME SEMANTIC WIKIS

Wiki:: Semantic Sci-Fi Movie

The screenshot shows a Semantic Wiki interface for the movie 'The 6th Day'. At the top, there's a clapperboard icon and navigation tabs: 'page' (selected), 'discussion', 'annotate', and 'view source'. Below the title 'The 6th Day', there's a movie poster. To the left, a sidebar contains navigation links (Main Page, Recent changes, Help), a search box, and a toolbox with various actions like 'What links here', 'Upload file', etc. At the bottom left, a 'browse' section shows a tree of Sci-Fi Films categorized by budget. The main content area lists movie details: Directed by Roger Spottiswoode, Produced by Mike Medavoy and Jon Davison, Written by Cormac Wibberley and Marianne Wibberley, Starring Arnold Schwarzenegger, Michael Rapaport, Tony Goldwyn, Michael Rooker, Sarah Wynter, and Robert Duvall, Music by Trevor Rabin, Distributed by Columbia TriStar, Release date(s) November 17, 2000, and Running time 123 min.

Familiar content just like another wiki

Semantic markups shown in fact box

Facts about The 6th Day

RDF feed

Actor	Arnold Schwarzenegger + Michael Rapaport + Tony Goldwyn + Michael Rooker + Sarah Wynter + Robert Duvall +
Allmovie profile id	1:214080 +
Budget	82,000,000 +
Composer of original music	Trevor Rabin +
Director	Roger Spottiswoode +
Distributor	Columbia TriStar +
IMDb profile id	0216216 +
Language	English +
Producer	Mike Medavoy + Arnold Schwarzenegger + Jon Davison +
Release date	17 November 2000 +
Runtime	123 +
Writer	Cormac Wibberley + Marianne Wibberley +

Category: Science fiction films

Wiki:: NGT - Proposal Handling

Edit Proposal: Doghouse

Warning: You are not logged in. Your IP address will be recorded in this page's edit history.

(Reviewers only) Click here to do first review to this project proposal.

Doghouse - Next Great Thing - Windows Internet Explorer

http://wikivulcan.com/ngt/index.php/Doghouse

the Next Great Thing

Doghouse

For the longest time, the small dog called a small cardboard box home. This is unacceptable. The house should be made of wood, or perhaps titanium.

Contents

[hide]

- 1 Why should this be developed or researched?
- 2 Describe any known costs to develop this project
- 3 Required timeframe for completion if known
- 4 Implementation ideas
- 5 Challenges and Risks

Why should this be developed or researched?

To create world peace

Describe any known costs to develop this project

Estimate how much it may cost : **2500** USD. Many things:

- Materials
- Time to buy materials
- Design
- Review
- Labor
- Quality Assurance by Dogs and human
- Show off

Required timeframe for completion if known

2009/08/16

Implementation ideas

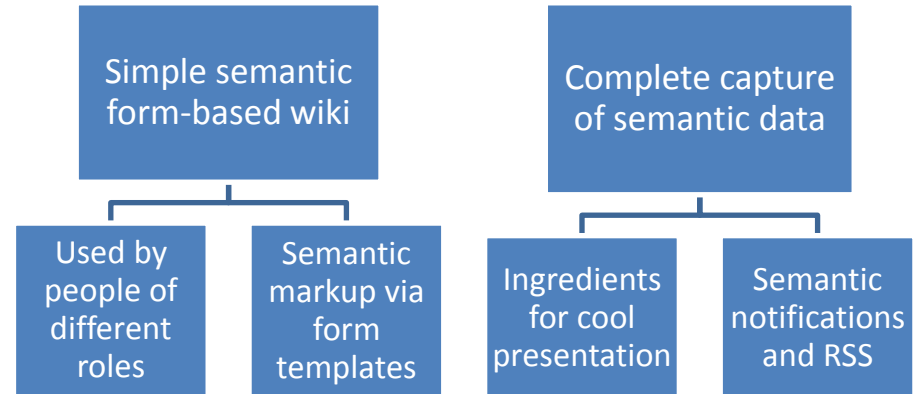
Doghouse

ID	NGT09-0036
Submitted by	Dennis Schneider
Submitted on	2009/05/15
Suggested priority	Medium
Status	Edit proposal
Short summary	Small dog, big house
Requested by	Dennis Schneider's wife
Rate this proposal	☆☆☆☆☆ not yet rated

Describe any known costs to develop this project*

Many things:

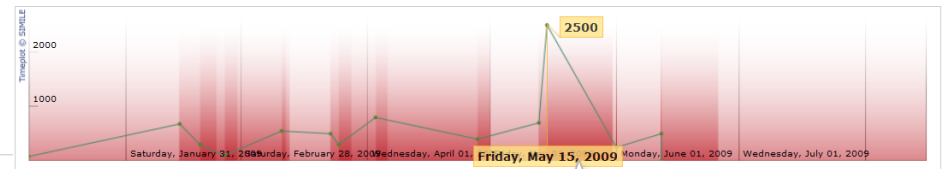
- Materials
- Time to buy materials



Proposals Visualized

The curve is for cost; the span is about how long it takes, and the horizontal line indicates when the proposals were submitted.

Click on each dot (or the vertical line) you'll see the detailed description of each proposal.



This page was last modified on 14 May 2009, [About Next Great](#)

Doghouse

Cost estimate : 2500
Submitted on : 15 May 2009
Submitter : Dennis Schneider
Timeframe : 16 August 2009
Summary : Small dog, big house
Fri, 15 May 2009 00:00:00 GMT
Sun, 16 Aug 2009 00:00:00 GMT

Wiki :: Agile Project Management

✓ Project Wiki for Milestones, User Stories, Developer Tasks, etc.

✓ Page is form-based, with queries and semantics built-in

Watch Protect Move Delete History Edit source Edit annotate Discussion Page

Persona Jesse

Vulcan Project Wiki

Search Go Search

Vulcan Project Wiki

Search Go Search

Watch Protect Move Delete History Edit source Edit annotate Discussion Page

Personal tools

- Jesse
- My talk
- My preferences
- My watchlist
- My contributions
- Log out

Navigation

- WikiTag
- Main Page
- Recent changes
- Notify Me
- Query Interface
- Ontology

Forms

- New Milestone
- New Report
- Other Forms

Current sprint


- Sprint 100510

Working on stories

- Continue to improve Dev Wiki
- Improving SVN Integration

Special pages

Insert semantic data error in Office 2007 German version



Insert semantic data error in Office 2007 German version

Related story [Maintenance \(WikiTags, Sprint 100510\)](#)

Reporter [Justin Zhang](#)

Report date 2010/05/20

Priority 1

Debugger

Fix date

Status Opened

[\[edit\]](#) SVN log

Can't use the function to insert semantic data into documents. The add-in inserts nothing or an empty table. And "Insert as Plain Text" doesn't work, either.

Category: [Project bugs](#)

Static facts **Derived facts**

Facts about [Insert semantic data error in Office 2007 German version](#) [RDF feed](#)

Bug priority	1 ±
Bug report date	20 May 2010 ±
Bug reporter	Justin Zhang ±
Project bug status	Opened ±
Project story	Maintenance (WikiTags, Sprint 100510) ±

[\[edit\]](#) bugs

For more info, go to
<http://wiking.vulcan.com/dev/>

Now see the demo

LIVE ACTIONS

Backstage::WikiTags Extension

- Wiki Validation
- Authentication
- To get the categories
 - And descriptions
- To get the article titles
- To get the semantic properties
- To get page info
- Get all available forms
- Save page as a form
- Save page with dataset
- Set form of a page
- Create form templates
- To upload into the Wiki

http://wiking.vulcan.com/dev/index.php/SMW_Webservice_APIs

Backstage::Semantic Connector

- Extension to facilitate semantic data exchange
- Web UI to make semantic schema mapping for semantic wiki templates and forms
- Web service APIs to do the same
- <http://wiking.vulcan.com/dev/index.php/SemanticConnectorExtension>

The screenshot shows the 'Vulcan Project Wiki' interface. At the top, there is a search bar and a 'Go' button. Below the search bar, the text 'Edit Developer: Test2 Justin' is visible. The main content area displays a form for editing a developer profile. The form includes fields for Name, Current project, Email, Phone, Company, Department, Job Title, Address, City, Street, Country, Postal Code, Web Page Address, Skill set, and Free text. A sidebar on the left contains navigation links such as 'Personal tools', 'My talk', 'My watchlist', 'Log out', 'Main Page', 'Notify Me', 'Categories', 'All Milestones', 'All Stories', 'All Tasks', 'All Bugs', 'All Status Reports', and 'Forms'. A 'Schema' window is open, showing a list of 'Applicable Forms' and a 'Form' window is also visible.

Schema

Form

Personal tools

My talk

My watchlist

Log out

Navigation

Main Page

Notify Me

Categories

All Milestones

All Stories

All Tasks

All Bugs

All Status Reports

Forms

New Sprint

Search

Go

Search

Edit Developer: Test2 Justin

Current editing form is **Developer**.

☒ **Related Forms (Check to view)**

BE CAREFUL All possible forms applicable to this page

Project manager

Team member

Wiki Contact

Outlook Wiki Contact

Double click item in **Applicable Forms** to edit page with select form.

Name: [George Test2 Justin Contact Picture.jpg]

Current project: []

Email: [a.jas@vulcan.com]

Phone: []

Company: [Teammersion.com]

Department: [MIS2]

Job Title: [Developer]

Address: [People Square Shanghai Shanghai 200]

City: [Shanghai]

Street: [People Square]

Country: []

Postal Code: [200001]

Web Page Address: []

Skill set: []

Free text: []

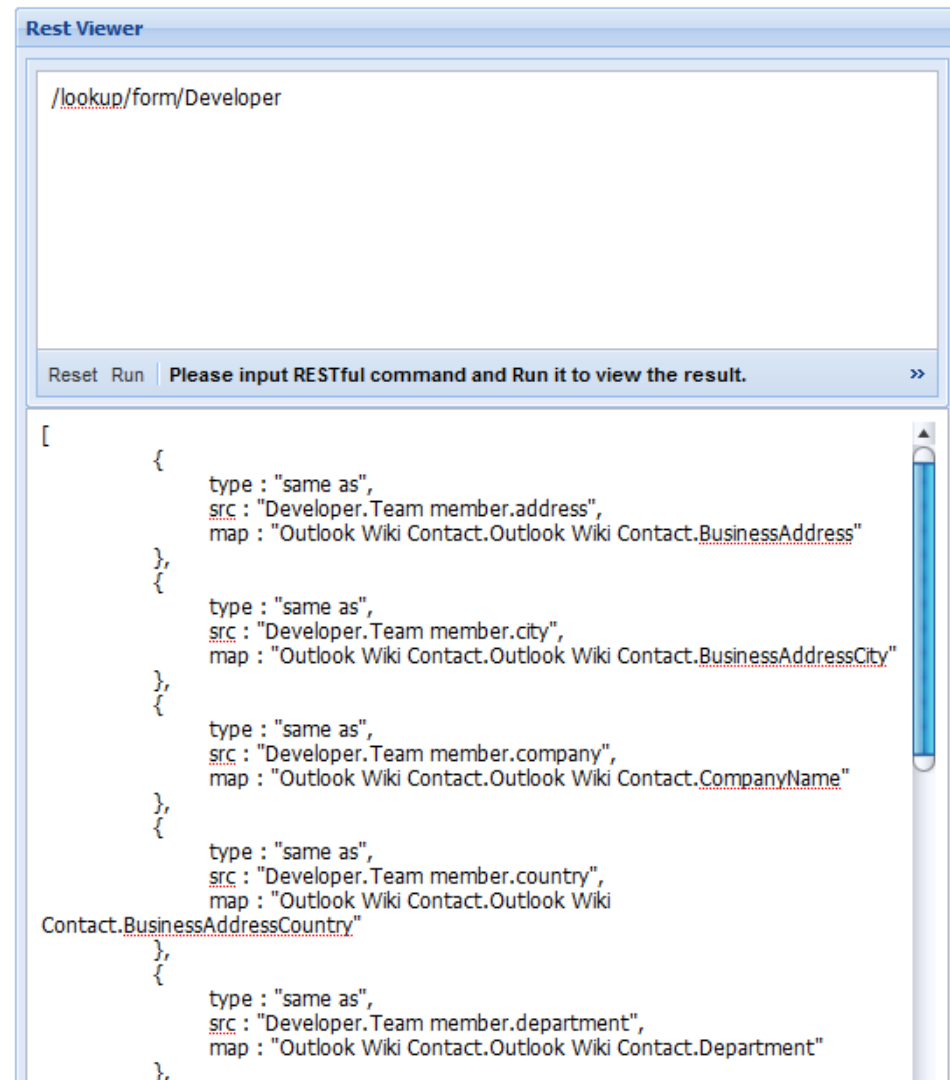
Please drag "Available" to the left

Drop to

Close

Special:ApiTest :: Results in JSON

REST Sandbox



The screenshot shows a web application titled "Rest Viewer". It has a text input field containing the URL `/lookup/form/Developer`. Below the input field is a control bar with "Reset" and "Run" buttons, followed by the text "Please input RESTful command and Run it to view the result." and a right-pointing arrow. The main area of the viewer displays a JSON array of five objects, each representing a mapping from a source property to a target property. The JSON is formatted with syntax highlighting and a vertical scrollbar on the right.

```
[
  {
    type : "same as",
    src : "Developer.Team member.address",
    map : "Outlook Wiki Contact.Outlook Wiki Contact.BusinessAddress"
  },
  {
    type : "same as",
    src : "Developer.Team member.city",
    map : "Outlook Wiki Contact.Outlook Wiki Contact.BusinessAddressCity"
  },
  {
    type : "same as",
    src : "Developer.Team member.company",
    map : "Outlook Wiki Contact.Outlook Wiki Contact.CompanyName"
  },
  {
    type : "same as",
    src : "Developer.Team member.country",
    map : "Outlook Wiki Contact.Outlook Wiki Contact.BusinessAddressCountry"
  },
  {
    type : "same as",
    src : "Developer.Team member.department",
    map : "Outlook Wiki Contact.Outlook Wiki Contact.Department"
  }
]
```

For more info, go to
<http://wiking.vulcan.com/wikitagz/>

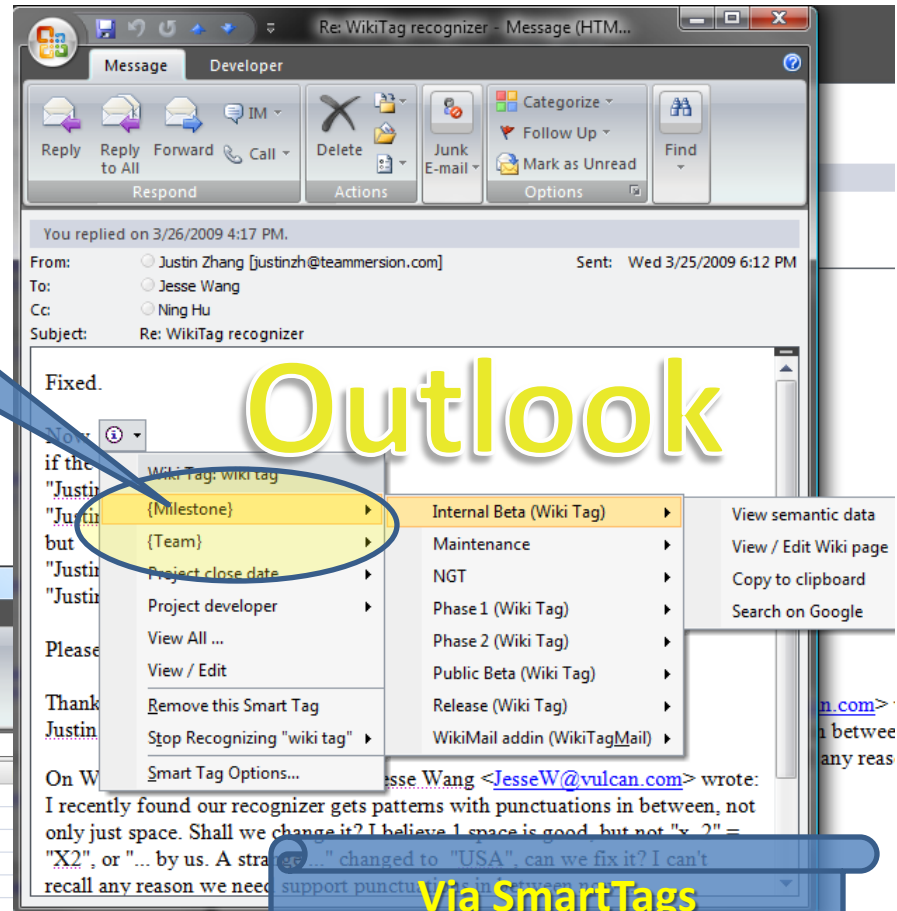
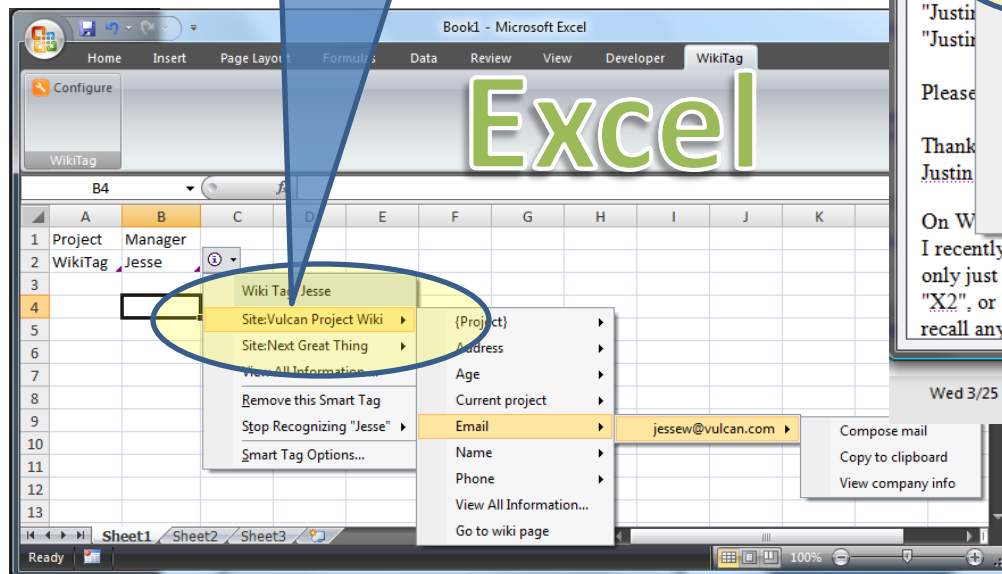
What to take away from the demo

RECAP OF DEMO

Semantic Info::Across Office Apps

Dynamic Query
Results from the
article page

Multiple Wiki Sites
supported



Outlook

Via SmartTags

WikiTags recognizes
smartly the keywords or
phrases relevant to you



Semantic Info::Smart Match

Stemming and
Stopword list support,
Similarity threshold*

Configuration via Wiki UI
and LocalSettings

design automatic semantic form
design automatic semantic forms
design of automatic semantic forms
designing automatic semantic form
auto semantic form design

Wiking Development Wiki

Search

Go

Search

Special page

Personal tools

Jesse

My talk

My preferences

My watchlist

My contributions

Log out

Navigation

Main Page

Recent changes

Documentation

Notify Me

WikiTags Stopword list

To enable or disable WikiTags stopwords list filtering, please edit "\$IP/LocalSettings.php" and add

```
$wgEnableWikiTagsStopword = TRUE; // FALSE;
```

For the stopwords list, upload a file named "stopword.txt" under "\$IP/images/", each stopwords one line, and modify in this special page.

WikiTags stopwords filter is **enabled** now.

of
a
an
to
the
for



Semantic Info::In Real-time

Explore related real-time semantic info across the links in article

See articles in categories live

Wiki Tag: project bugs

Create an instance using Project_Bug

Total 27 articles in Project bugs

- *Office Add-in Setup Error ▶
- *Office Add-in: Toolbar do not show up in Outlook ▶
- *Wrong template field when editing with Semantic Form ▶
- *WikiTag/Mail addin appears on non-mail items ▶
- *'Apply all' in site detail config (Wiki Tag) ▶
- *WikiTag name is "wrong" ▶
- *My WikiTag is in "inactive" state again ▶

View All Information...

Go to wiki page

Remove this Smart Tag

Stop Recognizing "project bugs" ▶

Smart Tag Options...

Semantic properties: [Wiki Tag]

* Semantic property values associated with the wiki article are shown below. Right-click a value to perform an action on it.

- Vulcan Project Wiki
 - Wiki Tag
 - (Milestone)
 - Add More Semantic...
 - Integration with SM...
 - Internal Beta (Wiki...
 - Maintenance
 - NGT
 - Phase 1 (Wiki Tag)
 - Phase 2 (Wiki Tag)
 - Phase 3 (Wiki Tag)
 - Public Beta (Wiki Ta...
 - Release (Wiki Tag)
 - WikiMail addin (Wiki...
 - WikiNG Initiative 1
 - (Project bug)
 - Machine not respon...
 - Missing WikiMail tod...
 - More Properties UT...
 - Why "Create a Wiki...
 - WikiTag name is "w...
 - WikiTag/Mail addin
 - (Team)
 - Ben Duncan
 - Jesse
 - Justin Zhang
 - Ning Hu
 - Project close date
 - 15 April 2009
 - Project developer
 - Justin Zhang
 - Ning Hu
 - Project manager
 - Jesse
 - Project name
 - Wiki Tag
 - Project sponsor
 - Project Halo
 - Project start date
 - 18 August 2008
 - Project status
 - NGT

Semantic properties: [NGT]

* Semantic property values associated with the wiki article are shown below. Right-click a value to perform an action on it.

- Vulcan Project Wiki
 - NGT
 - (Story)
 - Add more SIMILE widget to NGT
 - Add NotifyMe for other users
 - Add NotifyMe to NGT wiki
 - Auto authenticate from AD account to NGT wiki account

Semantic properties: [Add more SIMILE widget to NGT]

* Semantic property values associated with the wiki article are shown below. Right-click a value to perform an action on it.

- Vulcan Project Wiki
 - Add more SIMILE widget to NGT
 - (Task)
 - Add runway SIMILE widget extension to NGT
 - Add timeplot SIMILE widget extension to NGT
 - Executor
 - Ning Hu
 - Project sprint
 - NGT
 - Project story description
 - SMW + patch includes SIMILE Exhibit / Timeline widget,
 - Project story estimate
 - 3
 - Project story priority
 - 5
 - Project story reviewer
 - Jesse
 - Project story status

Insert Into Document

* Insert the semantic properties into your document.

As Plain Text

As Table

Close

WikiTags::Semantic Actions

Office Add-in: Auto-login Release

Justin Zhang

Follow up. Start by Friday, August 14, 2009. Due by Friday, August 14, 2009.

Sent: Fri 8/14/2009 8:16 AM

To: Jesse Wang; Patrick Cai; ning@teammersion.com

Semantic actions are based on semantic services of properties

Hi Jesse,

check the last version (352). We have finished Auto-login feature.

Wiki Tag: Jesse

- {Project}
- Address: Redmond, WA 98052
 - View on Google map
 - Copy to clipboard
- Age
- Current project
- Email
- Name
- Phone
- View All Information...
- Go to wiki page
- Remove this Smart Tag
- Stop Recognizing "Jesse"

Remove Selected Sites

00007

Sprint start date

25 March 2009

Sprint status

Finished

Show calendar of this day

Search on Google

Copy to clipboard

Insert Into Document

* Insert the semantic properties into your document.

Wiki Tag: Jesse

- Site:Next Great Thing
- Site:Vulcan Project Wiki
- View All ...
- Remove this Smart Tag
- Stop Recognizing "Jesse"
- Smart Tag Options...

{Project}

Address

Age

Current project

Email

Name

Phone: +1 (206) 2956316

- Call this number
- Copy to clipboard

View All ...

View / Edit

recall any reason we need support punctuations in between now...

Wiki Tag: Jesse

- Site:Next Great Thing
- Site:Vulcan Project Wiki
- View All ...
- Remove this Smart Tag
- Stop Recognizing "Jesse"
- Smart Tag Options...

{Proposal}

About me

Email: jessew@vulcan.com

- Compose mail
- Copy to clipboard
- View company info

Manager

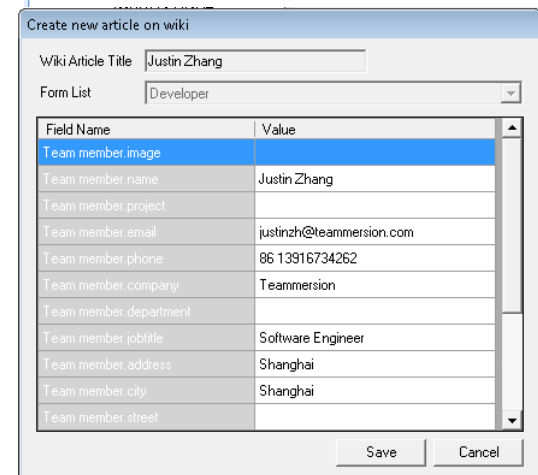
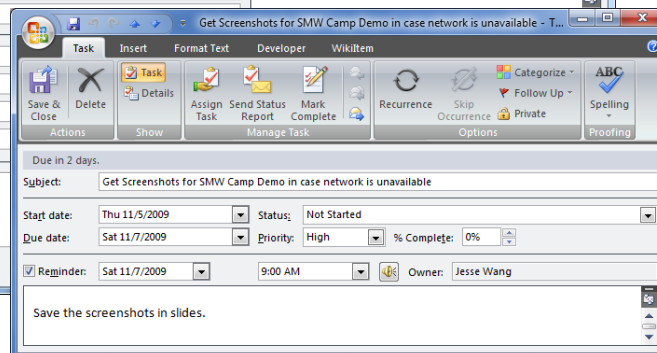
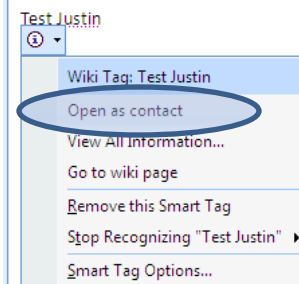
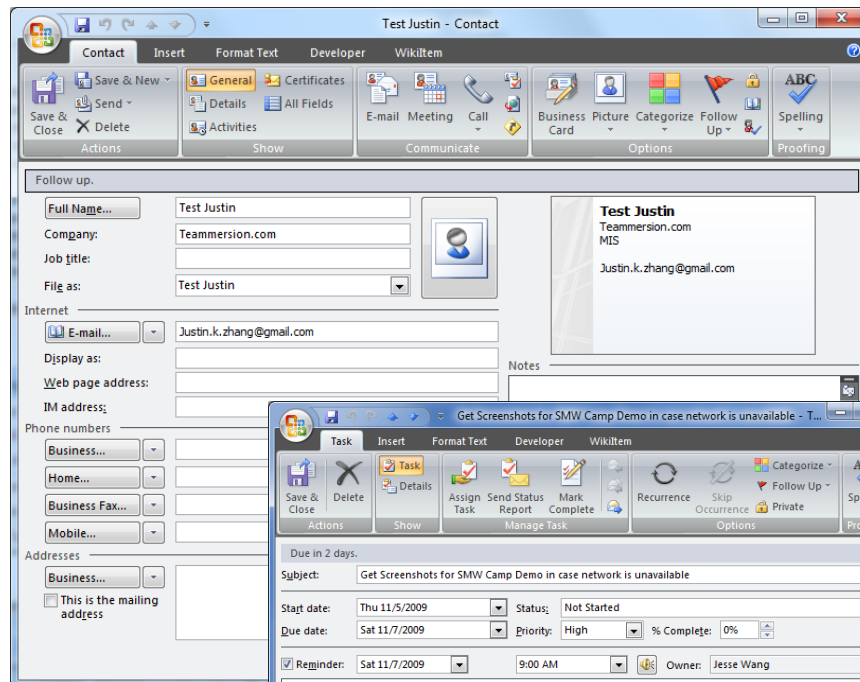
Person Image

Person title

View All ...

Wiki Forms::In Microsoft Office

- Read and Write Wiki Content in familiar forms
 - Semantic data in Outlook and Windows form
- Contribute into Wiki articles back



Field Name	Value
Team member image	
Team member name	Justin Zhang
Team member project	
Team member email	justinzhang@teammersion.com
Team member phone	86 13916734262
Team member company	Teammersion
Team member department	
Team member jobtitle	Software Engineer
Team member address	Shanghai
Team member city	Shanghai
Team member street	

Screenshots::E-Mail into Wiki

Shortcut to create
wiki articles

Upload Emails into
Wiki

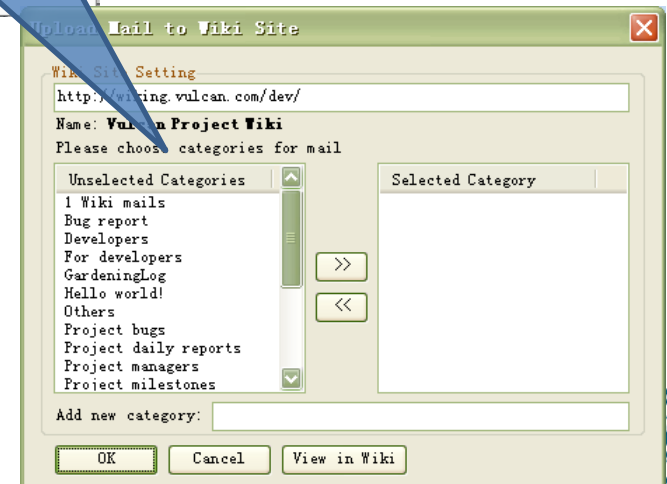
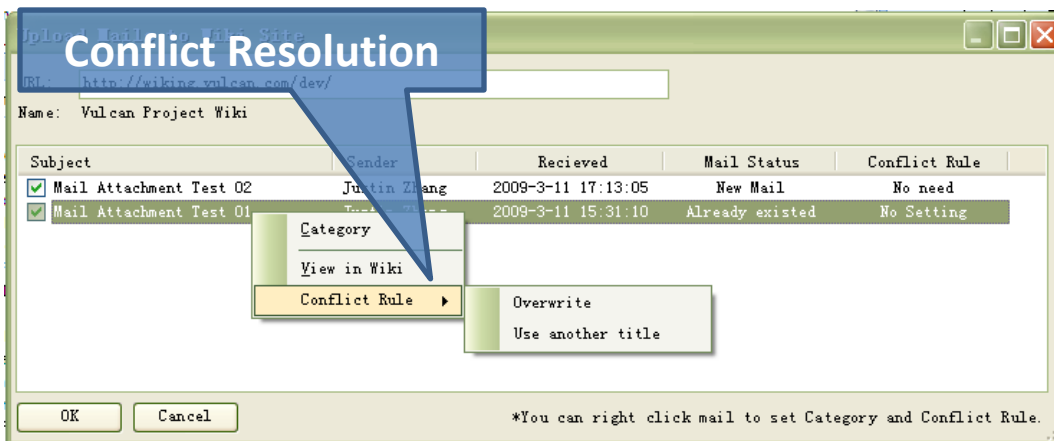
- Manual upload
- Automatic upload by folder mapping
- Conflict handling

- Heuristic category

- Use recipients, folders and text

Customize Categories

Conflict Resolution



Personal tools

[Log in](#)

Navigation

[WikiTag](#)
[Main Page](#)
[Recent changes](#)
[Random page](#)
[Notify Me](#)
[Query Interface](#)
[Ontology](#)

Categories

[All Milestones](#)
[All Stories](#)
[All Tasks](#)
[All Bugs](#)
[All Status Reports](#)

Forms

[New Story](#)
[New Task](#)
[New Bug](#)
[New Report](#)
[Other Forms](#)

Toolbox

[What links here](#)
[Related changes](#)
[Upload file](#)
[Special pages](#)

Bug report: strange text in project task description field in fact box (with attached picture)

Auto generated by Outlook Addin, please don't modify this page.

From JesseW@vulcan.com

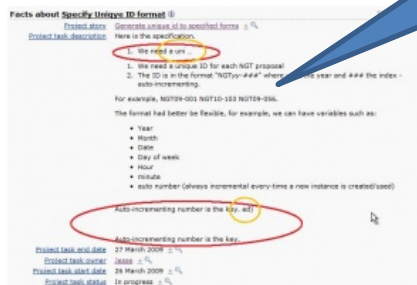
To ning@teammersion.com

Cc justinz@teammersion.com

Sent 2009-03-31 03:41:27

Attachments automatically uploaded too

Attachment(s)



Here is the URL: http://wiking.vulcan.com/dev/index.php/Specify_Unique_ID_format

Attached is the picture:

Priority=3

Jesse

Facts about **Bug report: strange text in project task description field in fact box (with attached picture)**

[RDF feed](#)

[Mail cc](#) justinz@teammersion.com

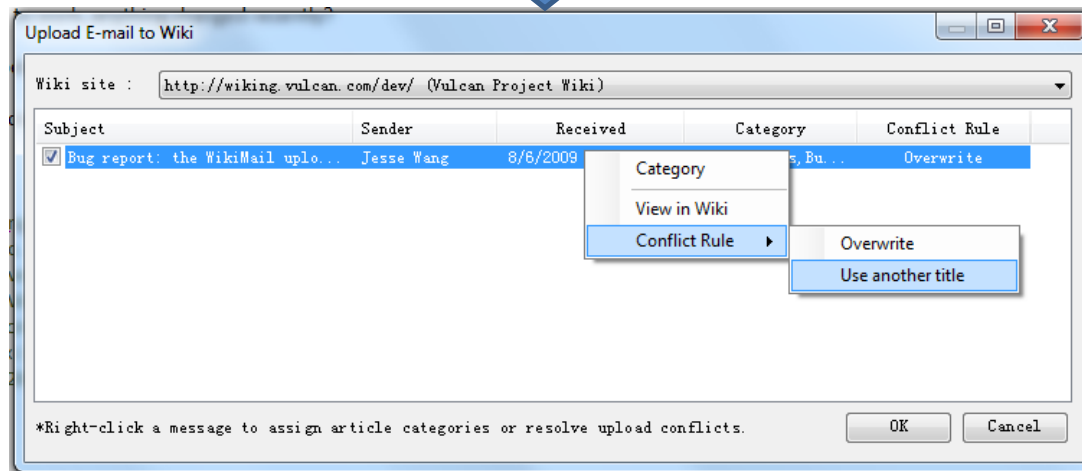
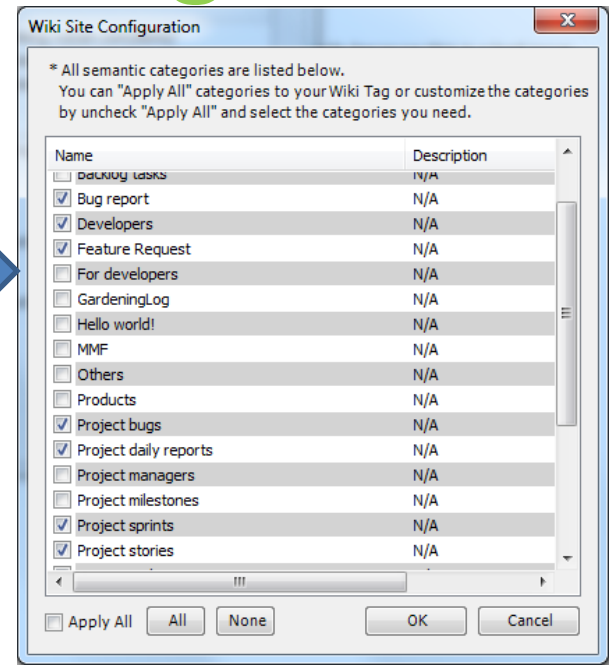
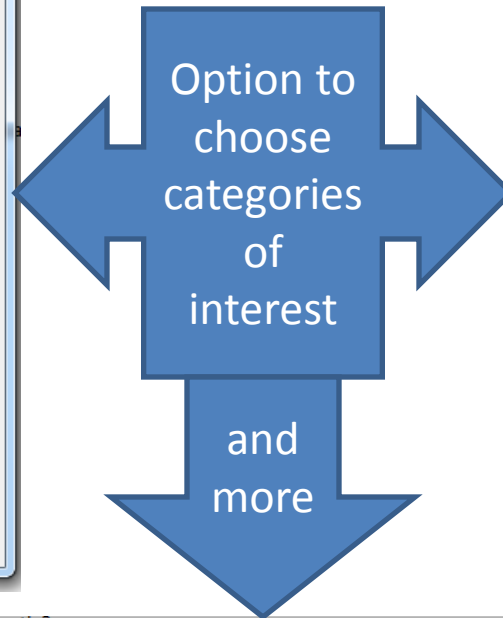
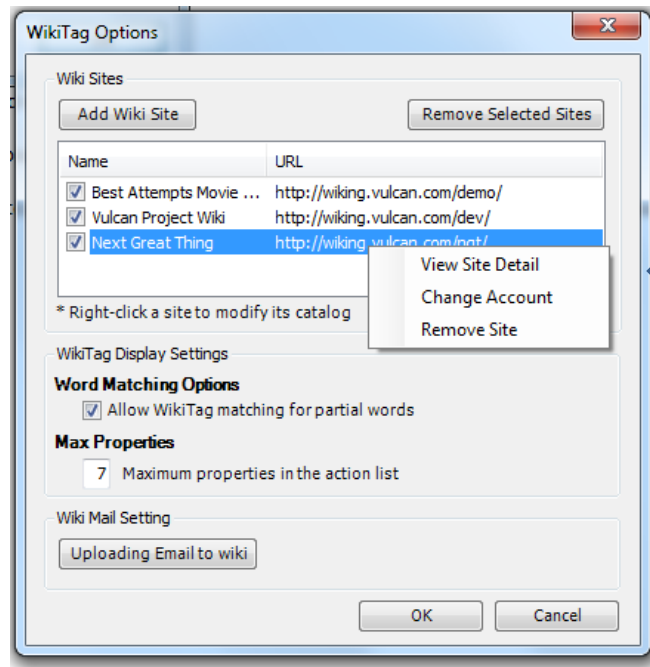
[Mail from](#) JesseW@vulcan.com

[Mail sent](#) 31 March 2009 03:41:27

[Mail to](#) ning@teammersion.com

Screenshot: Email in Wiki

Screenshots::Settings



WikiTags::Smart Connections

- Consume relevant, targeted information
 - With the tools you are *already familiar with*
 - In the context – *better relevance and productivity*
 - Only when you need it – *no information overload*
 - In place – *no search overhead to break workflow*
 - In real time – *data from wiki is live*
- Let you contribute to Wiki
 - *Without knowing* where the content is
 - *Without learning* wiki/template syntax

Thank | Help:: you | me

- For more info:
<http://wiking.vulcan.com/dev/>
- To help us:
 - Use it and let us know what you want
 - Collaboration opportunity
- To contact me:
 - Email jessew@vulcan.com
 - Twitter @aiwang
- Thanks to:
 - Project Halo, Vulcan Inc.
 - Karlsruhe Institute of Technology
 - Ontoprise GmbH
 - TeamMersion LLC
 - All you Semantic Wikiers